

# Performance-Adjusting Device for Inertia Sensor

## Abstract

5 A performance-adjusting device for inertia device is constructed by both  
suspension structure and micro-electroplating structure. The suspension  
structure may be manufactured by surface micromachining technique of  
sacrificial layer process or bulk micromachining technique incorporating  
10 with thin film process. One side of the suspension structure is arranged  
firmly to a supporting piece, such that another side of the suspension  
structure is shown as a suspension state. The suspension side of the  
suspension structure is made as micro-electroplating structure through the  
micro-electroplating process and is functioned as inertia mass for an inertia  
15 sensor. The size of the micro-electroplating structure may be changed  
through the micro-electroplating process, such that the inertia sensor may be  
adapted for sensing in different levels. Furthermore, a microstructure of  
high aspect-ratio may be achieved by taking the advantage of a metal during  
the selection of a processing material, such that the objective for lateral  
sensing or driving signal may be fulfilled.

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